ARCHITECTVRE

VOL. XIX. MAY 15, 1909. NO. 5

ARCHITECTURE, conducted by a Board of Architects in the interests of the profession, is published the fifteenth of every month by FORBES & COMPANY, LTD., (A. H. Forbes, Prest.) 225 Fifth Avenue, New York. Its opinions on technical subjects are either prepared or revised by specialists.

PRICE, mailed flat to any address in the United States, Mexico or Cuba, $5.00 per annum, in advance; to Canada, $6.00 per annum; to any foreign address, $7.00 per annum.

ADVERTISING RATES upon request. The writing and displaying of advertisements is an art in itself, and the publishers will be pleased to give the Advertiser the benefit of an Expert's experience in this line at no additional expense.

THE PUBLISHERS regret that owing to the demand the supply of back copies of ARCHITECTURE is limited. Prices will be quoted on application The regular price of each number is 50c.

ENTERED at the New York Post Office as second-class mail matter.

PLATES AND ILLUSTRATIONS

U. S. POST OFFICE AND COURT HOUSE, Denver, Colo.
  Competitive Designs.
    Main Elevation, - - - - - - - - - Plate XXXVIII
    Eighteenth St. Elevation and Transverse Section, - - Plate XXXIX
    Plans, - - - - - - - - - - - Plate XLI
      H. Van Buren Magonigle, Architect.
    Main Elevation, - - - - - - - - - Plate XXXVIII
    Eighteenth St. Elevation and Transverse section, - - Plate XL
    Plans, - - - - - - - - - - - Plate XLIII
      Trowbridge & Livingston, Architects.
    Accepted Competitive Designs, - - - - Double Plate XLII
      Tracy, Swartwout & Litchfield, Architects.
    Main Elevation, - - - - - - - - - Plate XLIV
    Eighteenth St. Elevation and Transverse Section. - - Plate XLV
    Plans, - - - - - - - - - - - Plate XLVI
      Arnold W. Brunner, Architect.
    Main Elevation, - - - - - - - - - Plate XLIV
      Varian & Varian, Architects.
TOWN HALL, New Canaan, Conn.
    Accepted Competitive Design, - - - - - - - - 68
    Plan, - - - - - - - - - - - - 69
      Edgar A. Josselyn, Architect.
COUNTRY HOUSE, A. A. Fowler, Peapack, N. J.
    Exterior, Interior and Plans, - - - - - - - - 70-71
      Edward S. Hewitt, Architect.
HOSPITAL, Tarrytown, N. Y.
    Accepted Design and Plans, - - - - - - - - - 72
      Boring & Tilton, Architects.
    Competitive Design and Plans, - - - - - - - - 73
      Jas. E. Ware & Sons, Architects.
N. Y. STATE EDUCATION BUILDING, Albany.
    Detail, - - - - - - - - - - - - - 74
      Palmer & Hornbostel, Architects.
MONTHLY PICTORIAL REVIEW OF OUR ENGLISH CONTEMPORARIES, 76-78

Copyright, 1909, by FORBES & COMPANY, LTD., 225 Fifth Ave., New York

SCHOOL OF ARCHITECTURE
COLUMBIA UNIVERSITY

Options in Advanced Design and Engineering. Courses leading to a Professional Certificate and to degree of BACHELOR OF ARCHITECTURE. Draftsmen of 3 years' experience admitted as non-matriculated students without examination. THREE ATELIERS.
Write to Secretary, Columbia University.

THE MINIMUM CHARGE FOR PROFESSIONAL SERVICES.

MR. GLENN BROWN, Sec'y A. I. A.,
Washington, D. C.

DEAR SIR:

We understand that under the new regulations of the American Institute of Architects, the minimum charge for full professional services is 6 per cent.

Will you kindly advise us if this is correct and also what is the penalty imposed on members of the Institute and Chapters if this regulation is not observed?

In other words—"What happens"?

We would be greatly obliged for the information.

Yours cordially,
February 18, 1909. FORBES & COMPANY, LTD.

FORBES & COMPANY, LTD., *Architecture*,
225 Fifth Ave., New York.

DEAR SIR:

Your letter of March 9, 1909, regarding the penalty attached to members of the Institute not observing the 6 per cent., was submitted to the Executive Committee at their meeting March 31, 1909, and I was directed to inform you that the Institute issued this revised schedule as a recommendation and as information to members and the public, showing that the Institute considers, after careful consideration, that 6 per cent. is the least sum for which plans properly prepared can be produced. An architect who knowingly attempts, or does secure a piece of work from another practitioner, by reducing his fees, would commit a breach of ethics.

Yours very truly,
GLENN BROWN,
April 8, 1909. Secretary A. I. A.

COMPETITION FOR THE UNITED STATES POST OFFICE AND COURT HOUSE, DENVER, COLORADO.

IT has been the wise policy of the United States Government to select the architects of great public buildings by competition; and furthermore, both the conduct of these competitions and their decision have been noteworthy for fairness and good judgment. The latest of these important competitions was that for the Denver Post Office and Court House, the winner of which was the firm of Tracy, Swartwout and Litchfield, who were also successful in the Denver Cathedral competition. It is pleasant to observe that one firm can design buildings so varied in character and so successful in their different lines as the Home Club, the Denver Cathedral and the Denver Post Office.

All the designs submitted in the Post Office competition employed the dignified and suitable treatment of exterior which has come to be the characteristic of American public buildings. This type of architecture, so often used in the earliest public work of the United States, has only come again into favor within the past ten years, and it is largely due to Mr. James Knox Taylor, supervising architect of the Treasury, that this is the case. Immediately upon Mr. Taylor's entrance into office there was a logical change in the architectural policy of the United States Government which, originating in the work of the Treasury Department, has spread to all the other departments to a more or less marked degree, and there is now practically a standard style of architecture being employed in public work. This style is of a very simple classic tradition, thoroughly in harmony with the old buildings and yet with a certain modern touch about it which marks it as architecture and not archæology.

Every design presented in this competition showed the strong influence of this tradition, with perhaps the exception of McGonigle's design which is somewhat more French of the modern type than the others. The winning design seems to me the best, both in plan and elevation, although that of Trowbridge and Livingston is exceedingly charming, in spite of its too close resemblance to the New York Post Office, designed by McKim, Mead and White. A tremendous order such as all the competitors have employed can never fail to be impressive, and is about the only thing in architecture which does not become tiresome through repetition. All the plans submitted are on the ground floor similar, and bear considerable resemblance to other large Post Office plans of recent years, notably to the New Orleans Post Office. On the second floor, however, there is considerable variance. The winning design is in this respect remarkably strong. All court rooms can be entered from the same side, all court rooms are amply lighted from both sides, and all have the offices at the rear—a treatment which is both correct in theory and satisfactory in practice. The only feature of this plan which strikes one as being unsatisfactory is the long walk from the stairs on the second floor to the offices of the clerks, file rooms, etc., and it is probably better that they should be placed together as they are in this case, than separated at the front and rear as in McGonigle's plan, or at the side as in Brunner's, and in no other plan are the court rooms anywhere nearly so dignified in treatment and so satisfactory in arrangement as in this plan.

Tracy, Swartwout and Litchfield's design on the exterior is a very simple piece of architecture of the Greek Revival, excellent in detail and admirable in mass. The side elevation is quite as pleasant as the front and the rear elevation has good possibilities. The change from office stories at the front and rear of the building to the high story of the court rooms is admirably managed and without any loss of scale. The entrances in the first floor on the front elevation are sufficiently marked, while the importance of the court rooms is apparent from the exterior. The most important consideration of a design in a building of this character is ample lighting of the Post Office Department, and in the winning scheme this is perfect, the skylights extending clear over to the public corridors on the first story, giving ample natural light for every employe on the first floor, and even lighting the public corridors from the rear as well as from the front. The entrances to the court rooms and their attendant stairways and elevator are placed at the ends of the building, while the natural entrance to the Post Office is from the center, and secondarily through the court room entrance. The stairways are well placed, both for appearance and for practical use, while the private entrance for the employes of the courts at the rear is managed in such a way as not to interefere with the Post Office Department, nor even to shut off any needful light. The public corridors and lobbies in front of the court rooms on the second floor are ample for the crowd of hangers-on always noticeable about a court room when business is being transacted, and are so arranged as to completely keep them away from the offices where they are too often found without having a legitimate excuse for being there.

In its general conception, both in plan and elevation, Tracy, Swartwout and Litchfield's scheme is vigorous and clever, while the details are as well thought out as the general scheme is logically conceived.

Trowbridge and Livingston's scheme, as could be expected from them, is an exceedingly good one and, while very similar to Tracy, Swartwout and Litchfield's on the first floor, does not approach it on the second. The overhead light on the first floor does not extend as far to the front as in the winning design, and artificial light would be necessary for the registry division, stamp division, money-order division, etc.; and the placing of these departments is not as satisfactory as in the winning design. While the placing of the court rooms is good, it is by no means as good as in the winner. They are lighted from one side only (in the case of the District Court, from the wrong side), and the entrances, both for the officers of the court and for the public, are not so well arranged. The public corridor, too, does not seem adequate for its purpose. The elevations are exceedingly beautiful but, as has been before said, resemble more closely than one could wish the New York Post Office.

McGonigle has presented, as always, a scheme beautiful in itself and wonderful in drawing. I do not believe there is a draftsman in the country to-day who can approach the excellence of McGonigle from the point of view of pure draftsmanship. His façades have always seemed to me a trifle heavy; while excellent in mass and in detail they are usually over-strong, perhaps also a little too French for buildings of this character. The plan is of the same general nature as the others, but is not so well lighted on the first floor, nor are the stairs so well placed as in the two others just spoken of. While the offices are entirely satisfactory on the second floor, the corridors are narrow (sufficient for circulation, no doubt), but not enough for court room corridors, and the court rooms are open to the same objections as in the Trowbridge and Livingston scheme. The front portion of the building is only three stories high, while the rest is four stories high. It is very likely true that the fourth-story portion on the front is not as essential from the point of view of plan as the rear and sides, yet it does not seem as if the front of the building should be less developed than the sides and rear.

Brunner's design is precisely what might be expected from him, conservative, rational and dignified, but without much brilliancy or sparkle. Compared with the others the elevation seems a trifle over-scaled, and while excellent in character has not quite the distinction, either in plan or elevation, of the foregoing.

Varian and Varian of Denver, Colorado, are here represented only by an elevation, which may be unfortunate, as it hardly ranks with the others; lacking their simplicity and somewhat of their dignity. This is in part due to the presentation employed, which needs the restraint in rendering shown in all the other drawings. It is, however, a scholarly piece of work and one which clearly indicates that knowledge of architecture is not confined to New York alone.

Any set of drawings in this competition would by itself seem to be a winning scheme, so excellent are they; and all their defects are of degree only, and apparent by comparison with the others in the competition. All in all, they are a credit not alone to their authors, but also to the person or group of persons who was responsible for their invitation. I think it is doubtful if even in France could be found in any one competition, drawings of so uniformly high character, and the United States is certainly to be congratulated upon a competition of this kind.

THE ART OF THE PLASTERER.

GEO. P. BANKART.

(Continued).

GIOVANNI DA UDINE was the assistant of Raphael and to him Raphael turned over the decoration of the loggia of the Vatican, this being the first work commissioned by the Cardinal after he became Pope. We refer to the old white "stucco-duro," the secret of which had been lost, and not to "stucco" as commonly used. This inferior material had long been known to the Florentine artists, and was in daily use for works of less importance. The enormous amount of decorative work which was done in the early sixteenth century demanded a speedy means of execution, and the revival of common stucco was the outcome, but Giovanni's experiments and work in the hard white stucco, known as "stucco-duro," was really the starting point of the new system of internal decorative work. With such supporters as the Pope and Raphael, its career was as long and continuous as it was smooth. Giovanni was engaged at the Vatican from 1504 to 1519 as Raphael's superintendent of stucco modeling and arabesque or grotesque painting, and was occupied on many other works of Raphael's until the death of his master. To Giulio Romano and Penni fell the honor of completing works which had been commenced by Raphael. The "Vigna de Medici" at Rome was one of these, and here Giovanni da Udine allied himself with Giulio Romano in the execution of the stucco and painted decoration.

Giulio Romano (1492-1546), chiefly a painter, was one of Raphael's assistants in the loggia of the Vatican. (Fig. IV.) He assisted him also in the decoration of the apartments in the Torre Borgia, and in the loggia of Agostino Chigi. He also executed the paintings in the Great Hall of Constantine in the Vatican, and his work in the Vigna de Medici, which has been mentioned above, consisted of paintings and garden decorations.

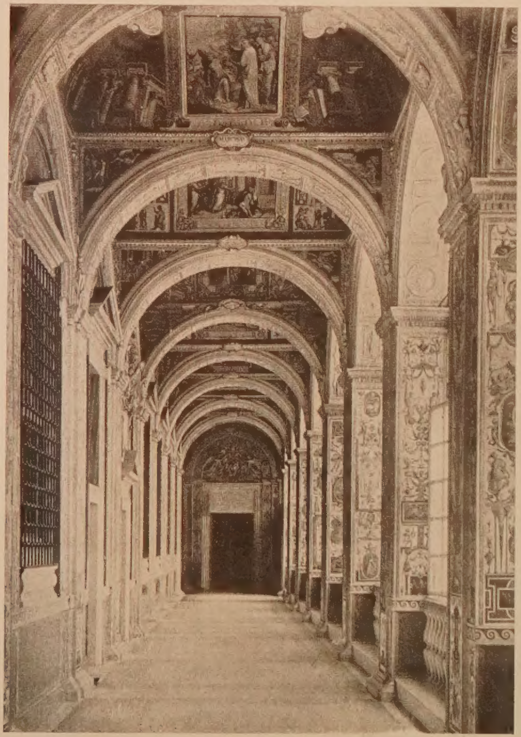


FIG. IV. THE LOGGIA OF THE VATICAN, ROME.

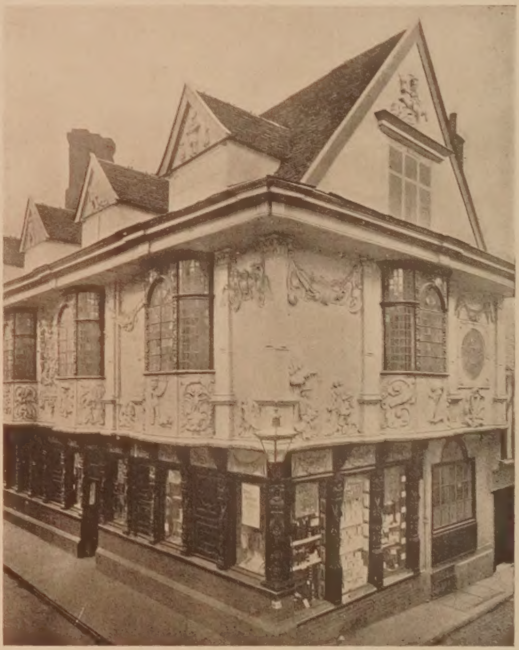


FIG. V. SPARROW'S HOUSE, IPSWICH.

As the foremost worker in stucco of the Italian Renaissance, there is the following reference to him in Lanzi's "History of Painting": "His place in this work is unique, for no other artist erected so many imposing and beautiful buildings, and adorned them with his own hands." His intimate connection with Raphael and the immense quantity of work which he executed independently of the great master, render advisable and indeed almost necessary, the inclusion of a somewhat detailed account of his travels and works, and a list of his chief buildings.

On the death of Pope Leo X., Giulio Romano went to Mantua (about 1524) where he obtained from the provinces all the stucco workers he required, and formed an important school.

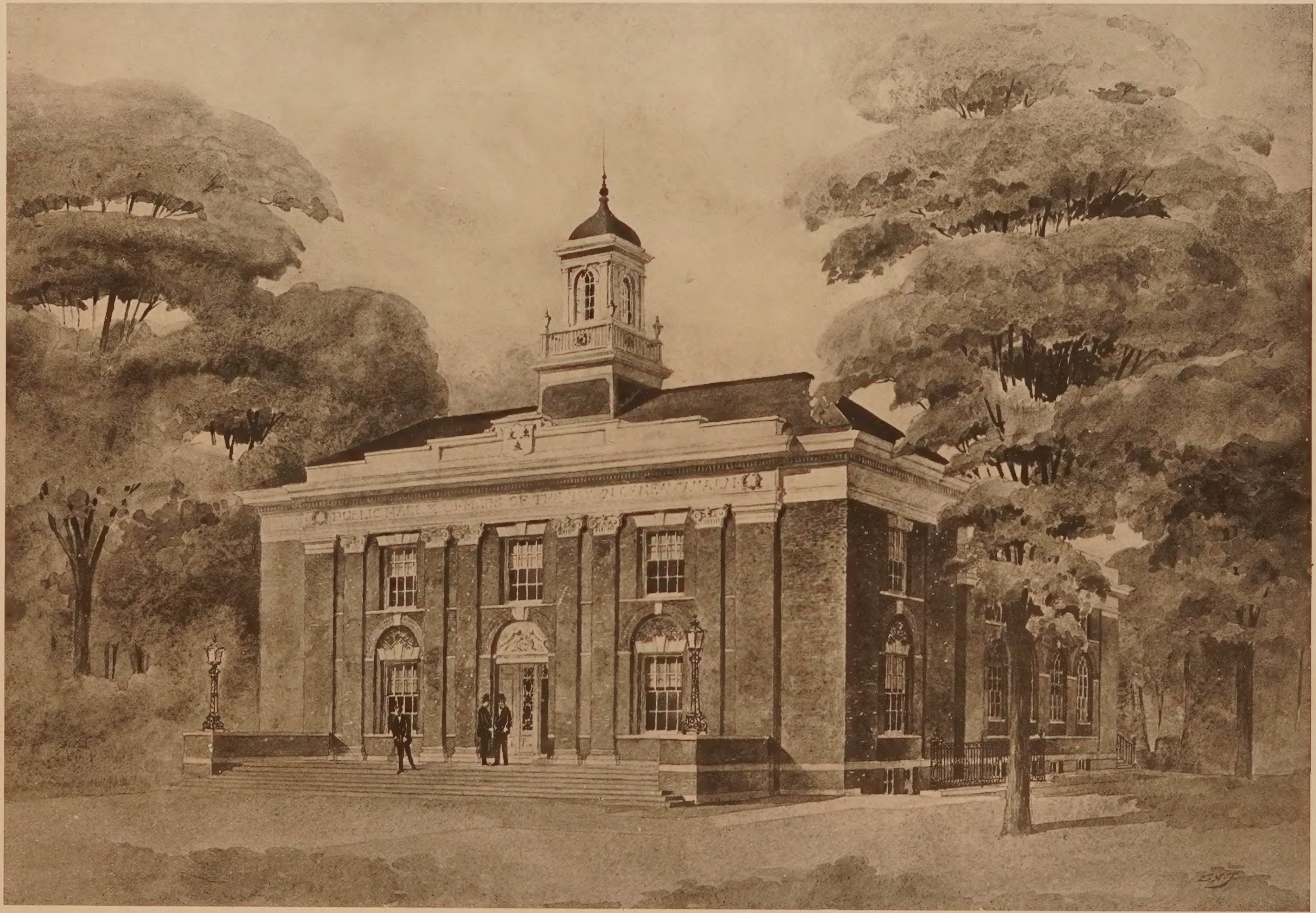
Among the stucco workers with Giulio Romano in Mantua was the young artist Primaticcio, a native of Bologna, who, for six years, worked with Giulio Romano, achieving great fame as colorist and modeler.

With him, perhaps, we are most interested, as it was he whom Francis I. of France invited to work at Fontainebleau. There he went in 1531, and soon became chief superintendent of works. Great as its interest is, it is not proposed to trace the development of French plasterwork from its beginning, for it would require a separate treatise, but, nevertheless, room must be found for a note on the work of this artist, since it formed a link between Italy and France, and must, therefore, have been one of the channels through which the stream of the Renaissance reached England.

Primaticcio's work at Fontainebleau greatly influenced the work in England, but was not confined to Fontainebleau, for many notable buildings in France contain a great deal of it.

Francis I. had a rival and contemporary in King Henry VIII. of England, who would be behind him in nothing, and introduced the new art into England.

(Continued page 69)



ACCEPTED COMPETITIVE DESIGN, TOWN HALL, NEW CANAAN, CONN.

Edgar A. Josselyn, Architect.

(*Continued from page 67*)

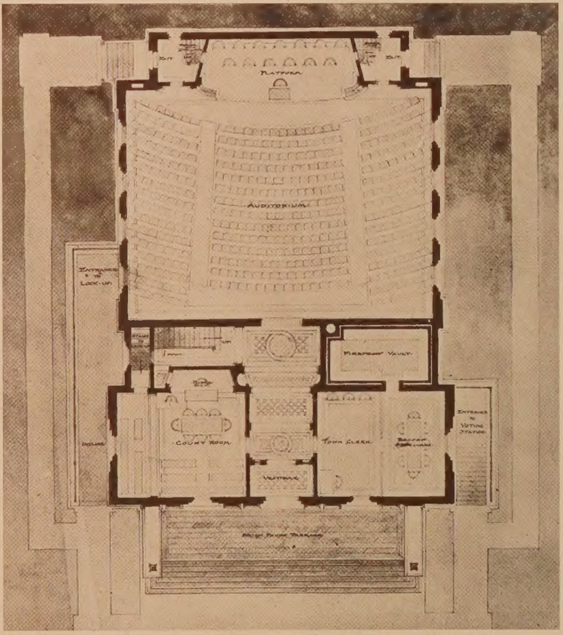
Under King Henry VIII. the art was fostered for a time, but not for long, for the method was too advanced and the material not what they have in England, nor ready to hand like the native plaster, so stucco-duro was superseded by the ordinary plaster, or mortar, composed of lime, hair, and sand, such as covered the walls and ceilings, and was used for ornamental purposes also, both inside and outside the building.

The English workmen were unaccustomed to the decorative disposition and modeling of the nude figure. The Italian nature was not the English nature, and the latter, left to itself, struck out a line of its own and plowed its own furrow.

Externally, decorative work in plaster was a principal feature of many English houses, in town and country, until the end of the seventeeth century, but the English plasterer made the interior his chief field of decorative operation. From the time of the building of the Nonesuch hardly a house of any importance was without its modeled frieze, and paneled ceiling of plaster, but the manner of the English plasterer, when left to himself, was in no way that of the Italian.

The climate was different; the life of the people was different. The great spacious halls and chambers of France and Italy necessitated a more ambitious treatment than the simpler homes of the English people.

(*To be continued.*)



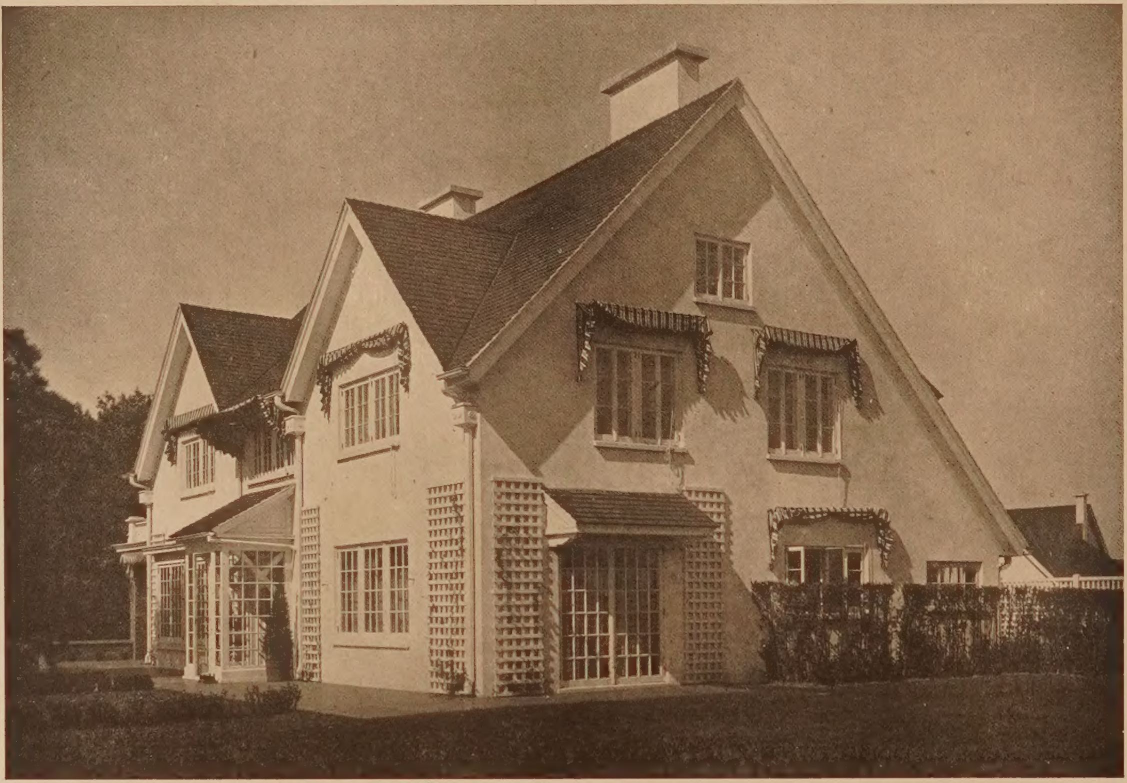
PLAN, NEW TOWN HALL, NEW CANAAN, CONN.
Edgar A. Josselyn, Architect.

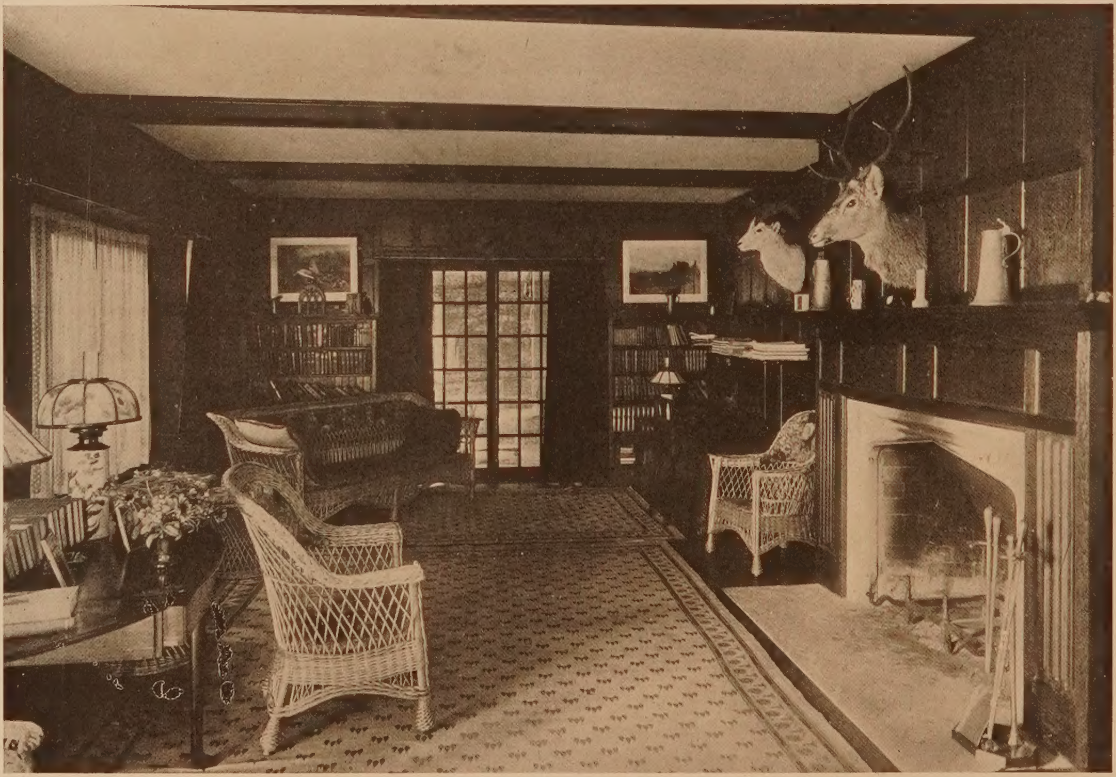
ARCHITECTURAL HISTORY.

ARCHITECTS have so entirely got into the habit of considering the study of the history of their craft to be part of their necessary early training, that a few minutes may well be devoted to considering how this comes about, and how best such study can be carried through. There is no other calling the history of which is considered to be an essential part of the equipment of its present-day practitioners. Merchants and tradesmen of all classes are quite content to accept things as they are and to carry on their business on more or less traditional lines, adopting new inventions and adapting themselves to new circumstances without troubling their heads in the least as to what has led to the present state of affairs. What need is there for a bricklayer to know anything of brickmaking and bricklaying as it was practiced by the Israelites in Egypt? or for the modern doctor to be acquainted with, say, the methods of treating rheumatism which were practiced in the infirmaries of the monasteries? Artists, whether they be sculptors or painters, generally do know more of the history of their predecessors and their works than do bricklayers or doctors; but it is the architect only who considers such a knowledge to be absolutely essential to him. The reason for this appears to be that architecture alone of all callings is at the present day consciously based upon work executed at definite periods of the past and under definitely well ascertained and well known circumstances. All other callings at the present time are acknowledged to be progressive and in course of development in original directions. The architect alone looks back for his inspiration, not finding it in the immediate present, save in a few rare instances; for there is, in places, a revolt against this architectural treatment of what should be a great living and developing art. At any rate, the fact remains that, with the great majority of us, there is a conscious following of some particular school, which existed, possibly, in a different land and under different conditions from those of the present time, modern systems of construction and modern materials being forced into subserviency to the canons of this or that architectural style, which itself arose originally as a natural method of treatment of other materials than those now used, under more primitive conditions and perhaps in other countries. There are among us men who are striving to go back to first principles and throw off what they consider to be the unbearable shackles of tradition—men who wish to evolve a new style of architecture, suitable to modern conditions. In England they have so far succeeded as to develop a definite domestic architecture which is different from anything that has gone before. Works of larger scope, however, at present, of necessity, have to be designed in accordance with traditional ideas. Some day we may learn to give such new methods of construction as, for instance, those now being introduced in connection with reinforced concrete, their natural expression in architecture as distinctive as the Classic or the Gothic. Such an end, however, does not appear to be in sight at present, but apparently, is it to be reached by conscious effort. It can only be attained by the gradual growth of a new school and, meanwhile, the study of architectural history remains essential to us, in order that we may so thoroughly understand what was done by those who have worked under natural conditions in the styles which we select for any particular building that we may not perpetrate gross anarchronisms ourselves.

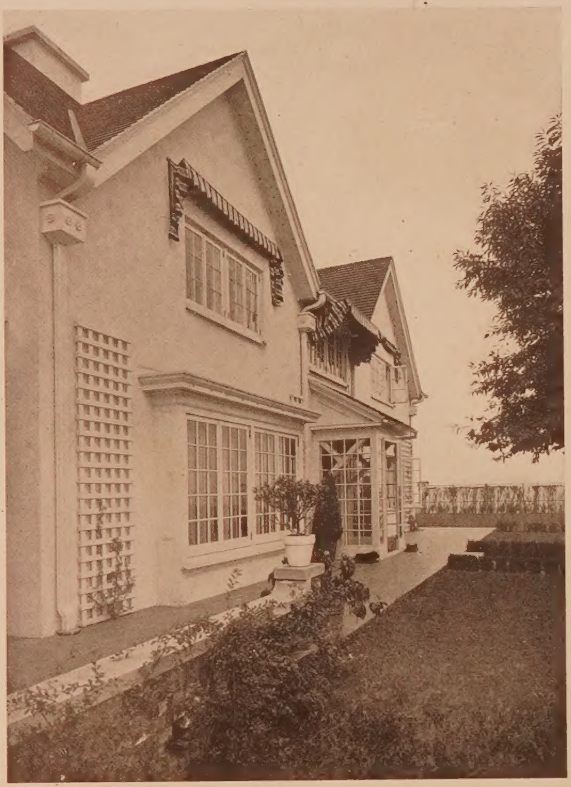
The object for which an architect studies the history of architecture is, therefore, not purely that of archæological research. His intention is to guide himself in his daily practice. He must know enough at least not to place early details on later forms, and to avoid mixing the characteristics of different countries in an incongruous manner. Beyond this, he probably desires to enrich himself with what literary

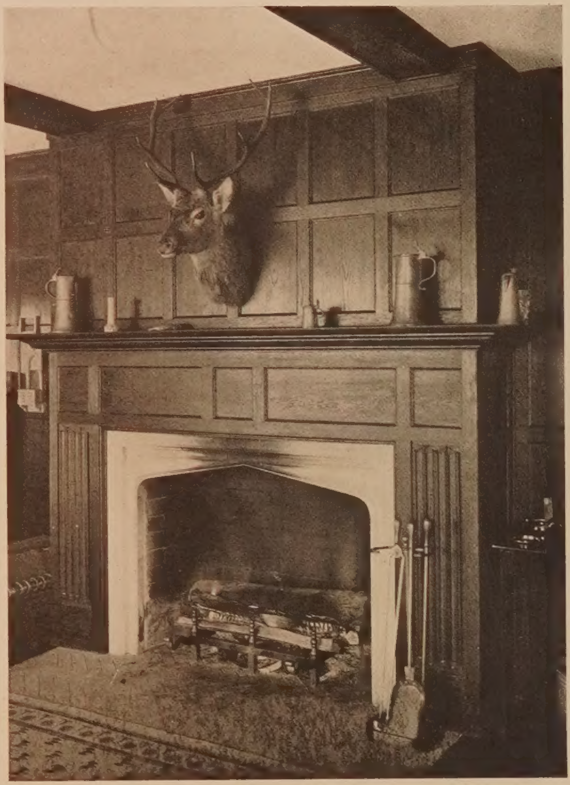
(*Continued page 75*)

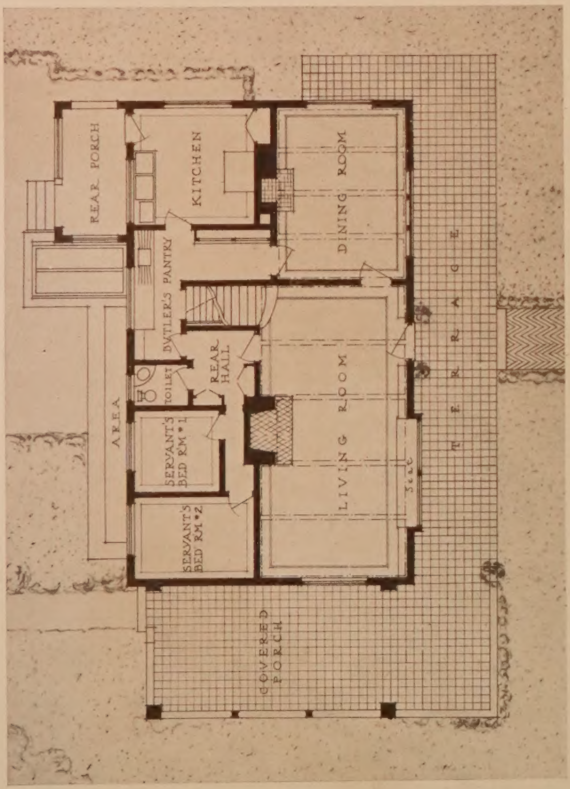


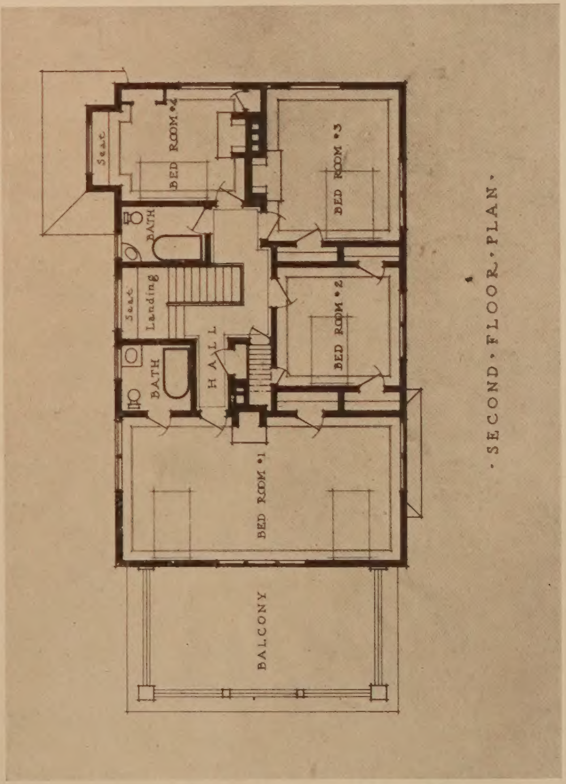


COUNTRY HOUSE, A. A. FOWLER, PEAPACK, N. J. Edward S. Hewitt, Architect.



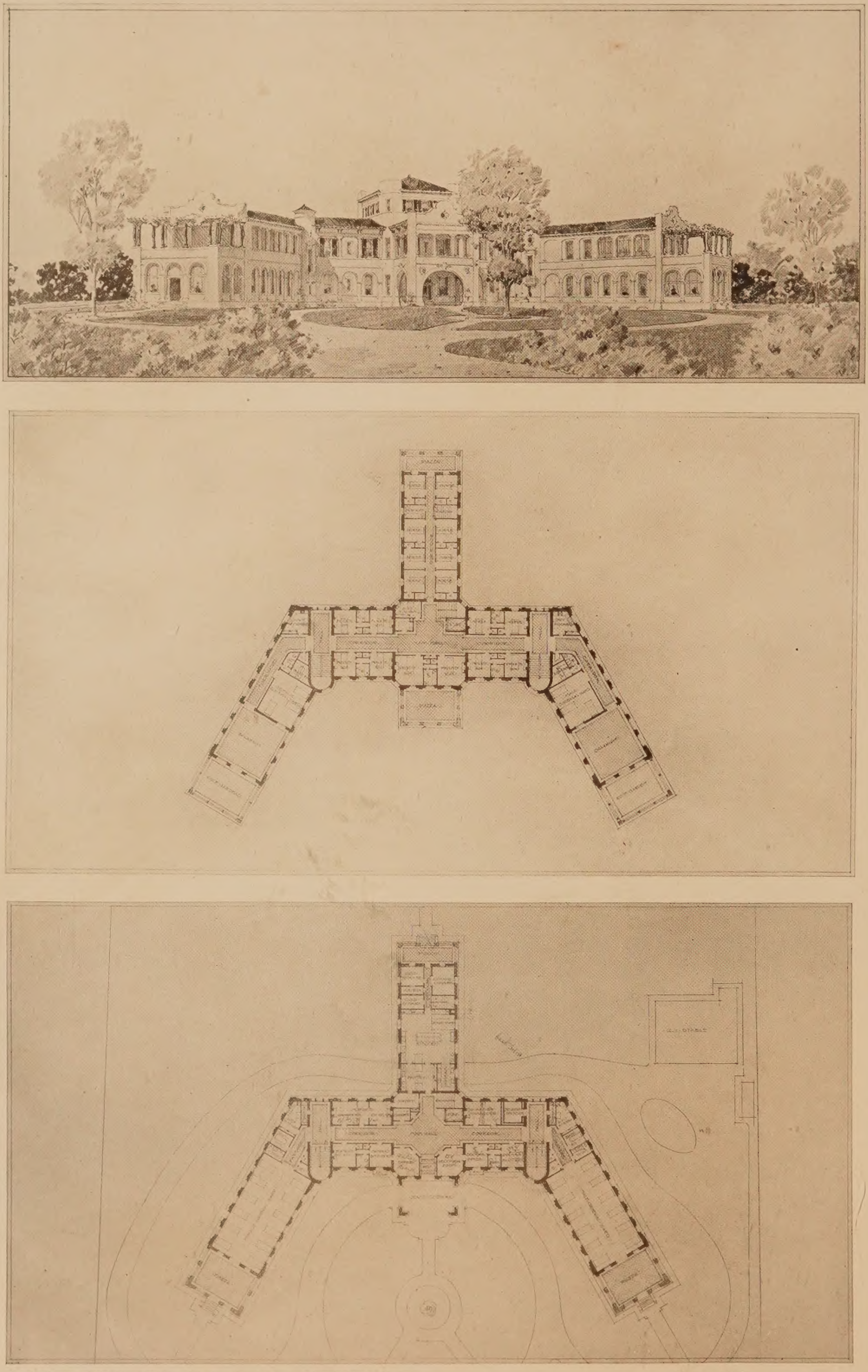






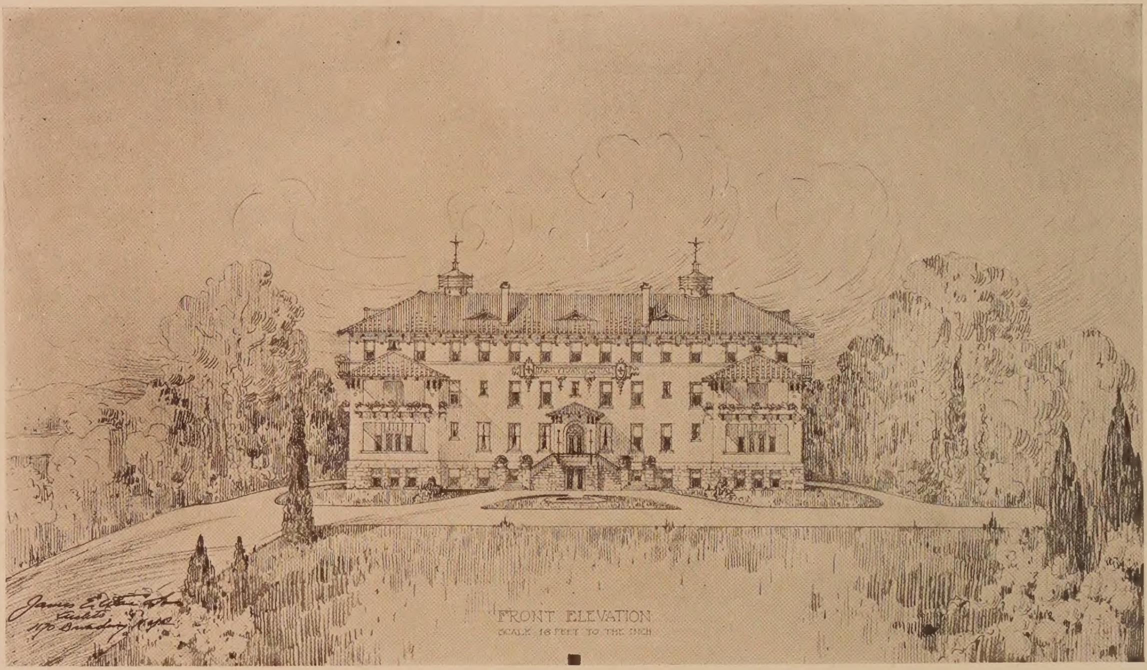
DETAILS AND PLANS, COUNTRY HOUSE, A. A. FOWLER, PEAPACK, N. J.

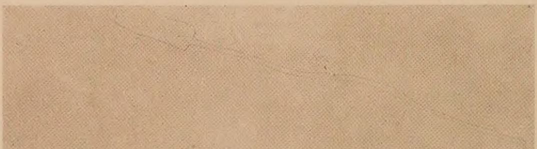
Edward S. Hewitt, Architect.

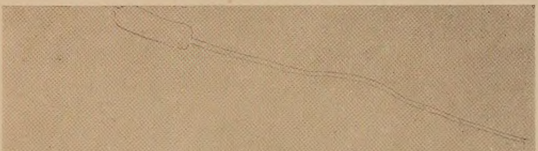


ACCEPTED DESIGN AND PLANS, HOSPITAL, TARRYTOWN, N. Y.

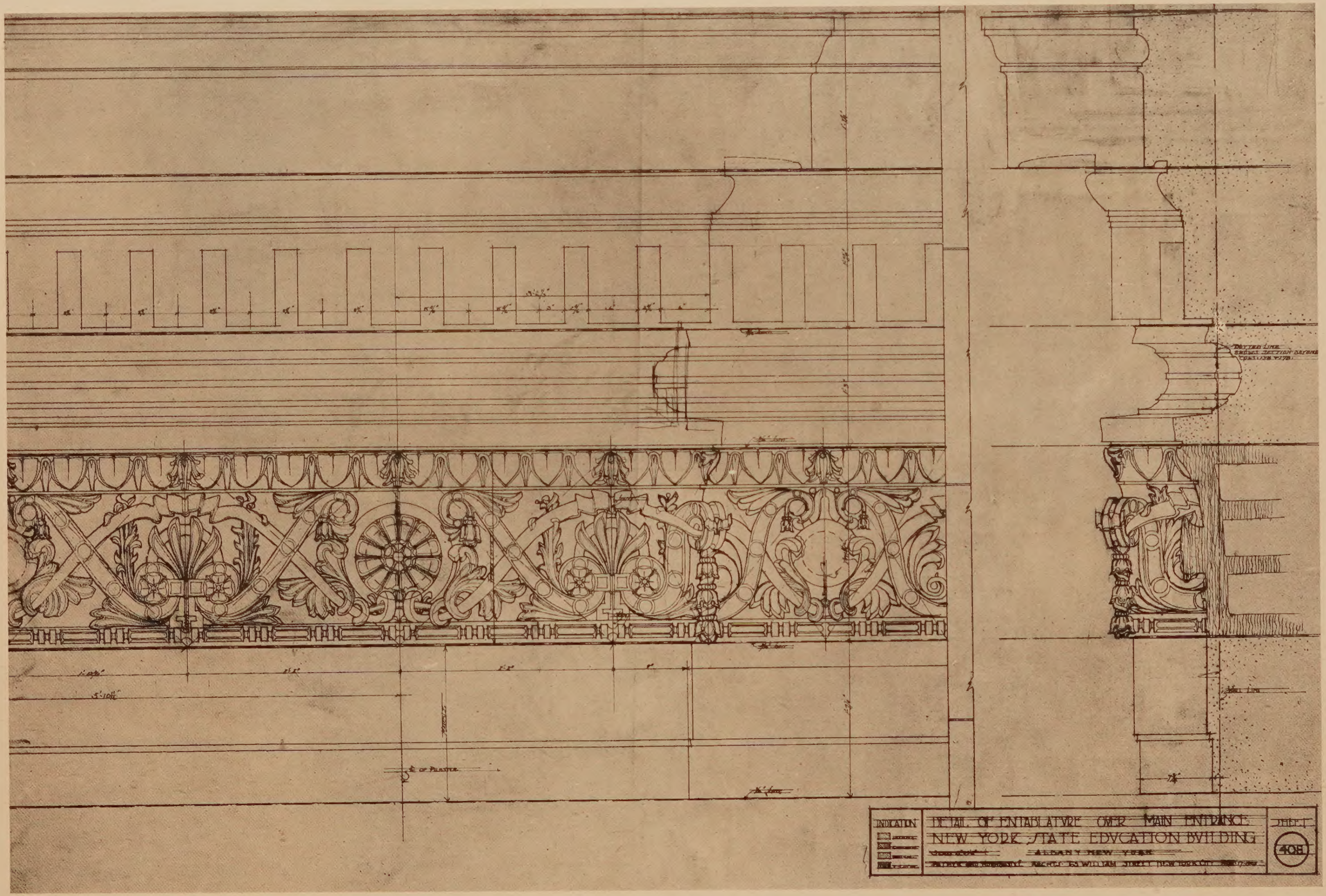
Boring & Tilton, Architects.


FRONT ELEVATION
SCALE 16 FEET TO THE INCH





COMPETITIVE DESIGN AND PLANS, HOSPITAL, TARRYTOWN, N. Y. Jas. E. Ware & Sons, Architects.


INDICATION
DETAIL OF ENTABLATURE OVER MAIN ENTRANCE
NEW YORK STATE EDUCATION BUILDING
ALBANY NEW YORK
SHEET
408
DOTTED LINE
WALL LINE
℄ OF PILASTER

NEW YORK STATE EDUCATION BUILDING, ALBANY.
Detail of Entablature over Main Entrance, the decorative portion to be in Terra Cotta, the balance in Marble.
Palmer & Hornbostel, Architects.

(Continued from page 69)

men would call a large vocabulary—that is, he wishes to obtain an intimate acquaintance with a great variety of forms, upon which he can draw in his own practice, unconsciously and without effort, so as to produce harmonious results. History, consequently, in the way in which it is understood by the schoolboy, is of comparatively little importance to him. He needs to know the historical sequence of architectural development; but whether the Parthenon was designed by Ictinus or by any other man with any other name does not matter to him in the smallest degree. Even the date of its erection only affects him from the sequential point of view, an error of a few years, or a few decades even, having little significance in this regard. The young student of architectural history often makes this mistake. He is probably fresh from school, where he has been accustomed, very wrongly, as many people think, to consider the history of his country as a mere matter of dates and names, which, with no apparent reason, it has been necessary for him to memorize. Very often a book upon architecture is placed in his hands which deals with the history of this great art upon somewhat similar lines, and, in his enthusiasm and knowing no other way of studying history, he sets himself to learn by rote a lot of unnecessary and perfectly useless facts. A great deal lies in the choice of the first book, which, instead of being of this character, would be much better in the form of a story which gradually develops, passing steadily forward from age to age and from country to country. It is, in fact, not the history of architects and of buildings which the student is seeking, but a history of architecture, and this is quite a different thing. The architectural student is, or should be, seeking to become an architect and not an archæologist, one who is capable of designing for himself either upon traditional or original lines, and not a mere thoughtless copyist. Now, history is this sense is very difficult to learn from books; in fact, it may be said that books alone would prove utterly unequal to the task of imparting the necessary knowledge. A certain amount of reading is necessary, but it should not be the schoolboy's reading. It should be wide and generous, paying comparatively little attention to exactitudes and names and dates, but gradually acquiring a knowledge of these through familiarity and the frequent meeting with the same in many books. Infinitely more important than reading in this regard is sketching, and the constant observation and comparison of plans and photographs. The sketching should be personally done from actual buildings or, failing these, in a museum. Copying is of comparatively little value; personal contact with good work is the great essential.

ARCHITECTURE AND ILLUMINATION*

BY EMILE G. PERROT.

AS the primary function of a building is to serve the practical uses of man, it is evident that the most successful building from this standpoint is the one that embodies to the last degree all improvements calculated to satisfy the needs of our complex civilization. Viewed strictly from the utilitarian standpoint, therefore, architecture and illumination are inseparable. If, however, architecture is considered in its real significance as being ornamental construction, one of the fine arts, and possessing in addition to its technical value, aesthetic and phonetic values—that is, beauty and power to tell a story—then illumination becomes only the handmaid of architecture, as are painting and sculpture.

Hence, it is seen that the relation of illumination and architecture may be considered from a twofold aspect. If we consider architecture with the most serious thought and take Ruskin's view-point of it, "we may live without her and worship without her, but we cannot remember without her," then we must consider the ability of our architecture to transmit to posterity the true life and history of our time, written in imperishable stone to be the conqueror of the forgetfulness of men. Only when this has been done will the highest function in the practice of the art have been fulfilled.

In order that a building may give pleasure to the beholder, it must possess the attributes of unity, grace, and proportion. Unity consists in the manifest connection of the parts into a whole. When the parts are arranged with a varied outline, they give pleasure from this cause; while proportion consists in so regulating the size of the parts that they appear in harmonious relation to each other. Hence it is by the possession of these three attributes to the proper degree that a building ranks as a work of art.

The architect's means of expression is by the use of the materials of construction, which must be so molded and shaped as to give the appearance of solidity; that is, that the building is a concrete reality, that it is solid and substantial in addition to being a thing of beauty. This effect is produced largely by means of shades and shadows; hence the knowledge of the "third dimension," as it is called, is necessary to the proper expression of a building. It is here that light plays a most important part in the bringing out of the details which characterize the work of the master architect. It was the understanding of the contour of details that made the Greeks surpass the Roman as artists, and is indicative of the perfection to which the Greek mind was developed as compared with that of the Roman. If a study is made of the capitals of the Doric order of Architecture, which were used by both the Greeks and the Romans, the shape of the ovolo mold in the former will be seen to possess that subtleness of outline that the light and shade changes so gradually as to produce a softness not obtainable in the bold outline used by the Romans, which latter was an expression of a less refined nature. The study of the play of light and shade on the exterior of a building requires the highest kind of training for the successful outcome of an architectural composition; the effect of the building in strong sunlight being usually considered.

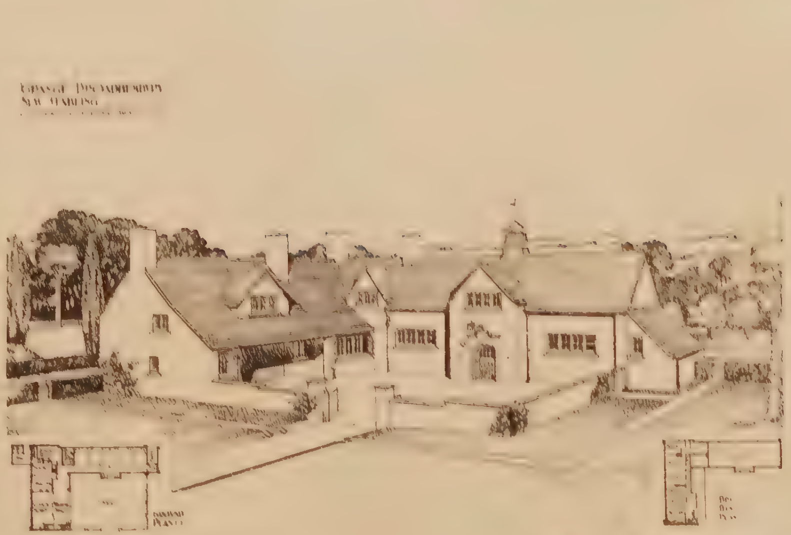
With the interior of the building, however, it is different. The effect of the strong sunlight no longer exists, a diffused or subdued light takes its place. Hence, the design of details for the interior of a building should not possess the same characteristics as are found on the exterior of buildings. Here again the skillful architect seizes his opportunity to display his talent by so modifying the details that they may be best brought out under the different light conditions.

The aspect of the building when viewed in daytime will be different from that at night with artificial illumination. Therefore, the architect should study the method of lighting in relation to its effects on the aspect of the design, in just the same manner as he does the effect of sunlight. This phase of the art of lighting, it must be confessed, has

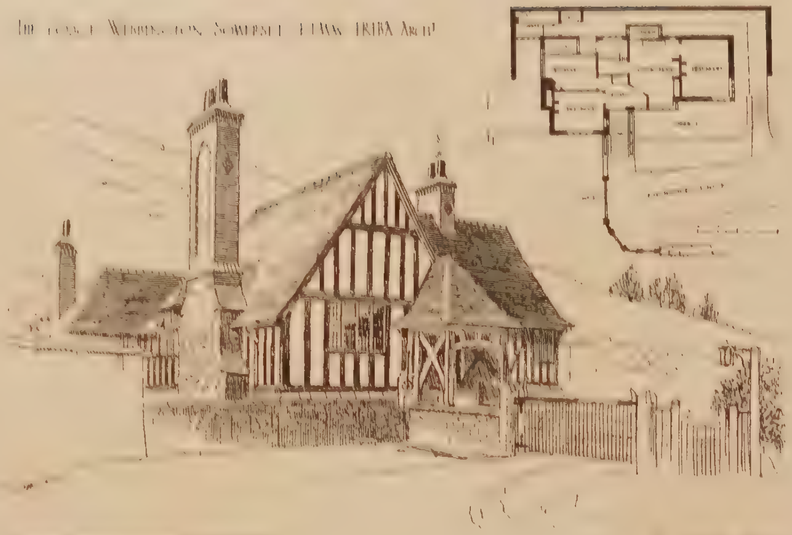
(Continued page 77)

---

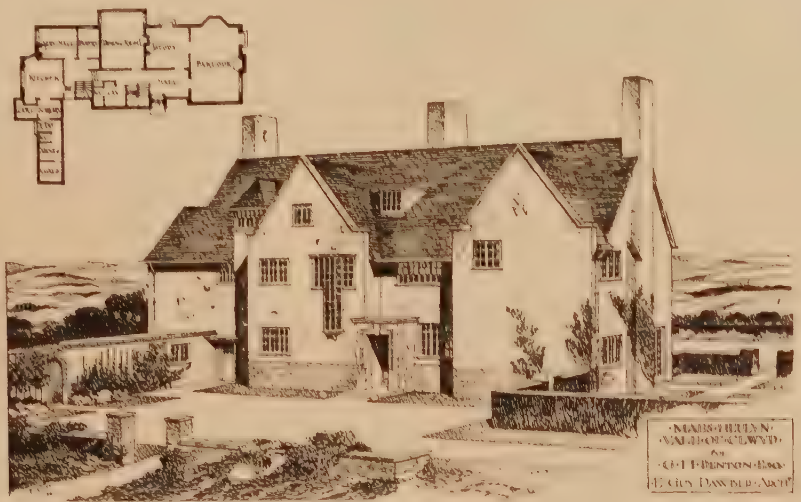
*A paper presented at the Second Annual Convention of the Illuminating Engineering Society, Philadelphia.



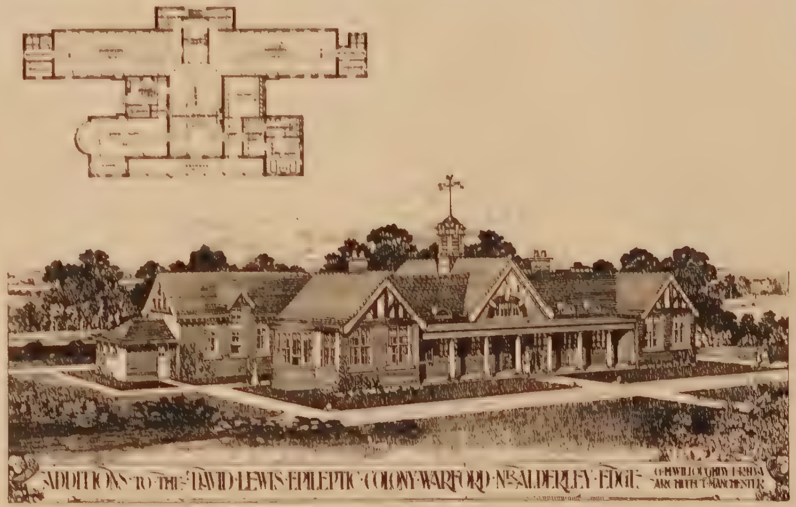
STABLE, GRANGE, BROADHEMBURY. Ellis Son & Bowden, Archts.



LODGE, WEBBINGTON, SOMERSET. F. J. May, Arch.



COUNTRY HOUSE, VALE OF CLWYD. E. Guy Dawber, Arch.


ADDITIONS·TO·THE·DAVID·LEWIS·EPILEPTIC·COLONY·WARFORD·NR·ALDERLEY·EDGE·
G·H·WILLOUGHBY·FRIBA
ARCHITECT·MANCHESTER

EPILEPTIC COLONY, ALDERLEY EDGE. G. H. Willoughby, Arch.

MONTHLY PICTORIAL REVIEW OF OUR ENGLISH CONTEMPORARIES

(Continued from page 75)

been very much neglected by the architect. It is to be hoped that greater care will be used, and more study put into the illumination of buildings, by our architects so that the result, when the building is completed, will be one in which no shortcoming from this cause will be visible. Much can be done by this Society to further this end among the architects.

For the purposes of this paper, illumination may be divided into two parts—"necessary lighting," and "decorative lighting." Under the first head is included all methods of lighting which are used in buildings irrespective of the effect upon the architecture; in other words, the scientific application of the sources of light for the purposes of rendering possible the use of the building at night time.

The second division comprises that use of artificial lighting for the purposes of display, without any reference to the scientific or economic aspect. Of course, the latter method of lighting also performs the function of the former.

The method of lighting outlined under the first heading is the one that has been employed in the majority of cases; in many instances it seriously counteracts the effects of the architecture by compelling the use of large and unsightly fixtures in locations ill adapted for them. This result is very noticeable in large buildings whose prototypes are the monuments of ancient Rome and Greece, in which the use of elaborate chandeliers is unknown. However, lighting fixtures, if properly placed, and designed for the location, are one of the best means of adding to the furnishings of an apartment. The architect should design the fixtures for a building just as he designs the carving for a column capital or the bas-relief enrichment of a frieze, for the use of stock patterns for any feature of a building is reprehensible. On the other hand nothing is more striking in a building than a lighting fixture when in use at night time.

As a rule, the general practice heretofore has been for the architect either to make a selection from fixtures that are in stock or to entrust the designing of the fixtures to specialists in this line.

In many cases the architect is not consulted at all, the owner or committee arrogating this right to themselves, very frequently to save the architect's commission. However, in more important work the architect's influence on the selection of fixtures is felt more than ever, to the extent thus far that the architect even designs the hardware for the building, just as he would a stair-rail or iron-grille.

A very successful combination of architecture and illumination exists in the new Singer Building, New York. The lighting of the main entrance lobby is particularly striking by reason of the absence of electroliers, while the architect has made use of concealed lamps over a diffusing glass forming the center of each vault; thus a flood of light emanates from the center of each vault, bringing out very effectively the details of the building. The decorative or display lighting of the exterior of the building is effectively accomplished in the combined use of lamps to outline the architecture of the roof, and search lanterns to illumine the shafts of the high tower, bringing out, even in night time, the effect of the color scheme. While one may question from an architectural standpoint the wisdom of the display on a building of this type, there can be no doubt that the scheme is appropriate in the case of the lighting of such pleasure buildings as are seen in the summer parks, such as the towers in Coney Island. The kaleidoscopic treatment of the designs in electric lamps is in keeping with the latter type of building, and the general use of lamps to outline the architecture and form part of the general treatment of the design is to be commended.

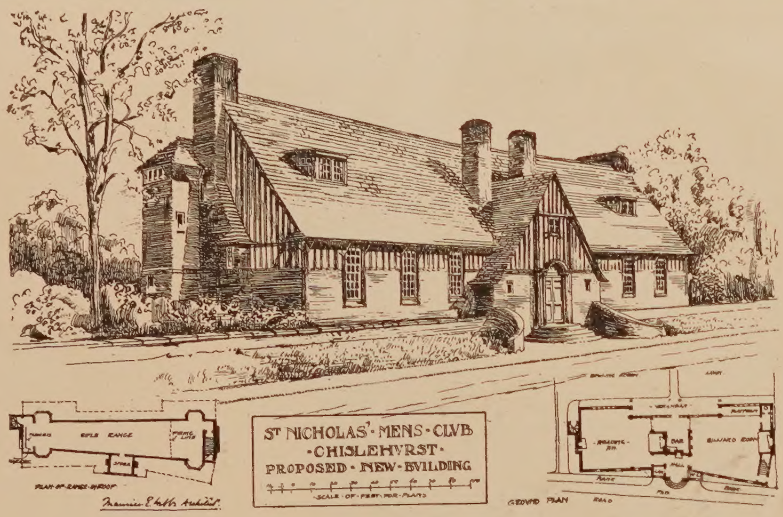
One of the most successful uses of decorative lighting on a large scale was in connection with the Buffalo Exposition of 1901. On account of the nearness of the Exposition to Niagara Falls, it was possible to produce effects on a large scale hardly possible when the cost of production is so much greater. In the Exposition it can be truly said that illumination was the handmaid of architecture, for no one standing at the entrance to the forecourt at sunset, with the strains of the band playing the soul-stirring national anthem, was not stirred when he looked upon the dim outlines of the buildings as they receded one back of another with the tall tower looming up in the distance about to lift its pinnacle of light to Heaven to proclaim to the world the supremacy of man's genius as exemplified and typified in the pillars of light. The sight was particularly impressive when in the midst of this gloom the soft glow of the electric lamps encompassed the entire scene, and, as if possessed of a single moving spirit, the glow gradually grew to a brighter and brighter light until the entire surroundings, buildings, landscape, and statuary, glistened in the brilliancy of thousands of electric lamps that served not only to delineate the buildings but to illumine the heavens for miles around. Anyone who was fortunate enough to witness it will agree with the statement that for the perfect union of architecture and illumination the Buffalo Exposition has never been surpassed.

My idea as to one way in which this Society could materially help the architects, as mentioned in a previous part of this paper, is by the publication of tables embodying standards and by giving data and formulas for the lighting of all types of buildings by the various illuminants. Such pamphlets should contain examples of lighting schemes in existing buildings. Of course, the publication of such data would involve considerable labor and cost, but I think a committee of this Society could be appointed which would be able accomplish this end, if the members consisted of those who had previously performed this service for the large manufacturing and lighting companies. I hope the convention will take some steps towards furthering this end. If buildings are to be properly lighted and made to embody the latest improvements, the architect should be kept in touch with all that is new and desirable for the purpose of effectively and economically lighting the buildings he designs, with the view of wedding together architecture and illumination, and thus leave to posterity the fullness of what has hitherto been but a faint effort of the proper union of the noblest of the fine arts, and the most useful of the sciences. I believe that this result can be better accomplished through this Society than by any other means.

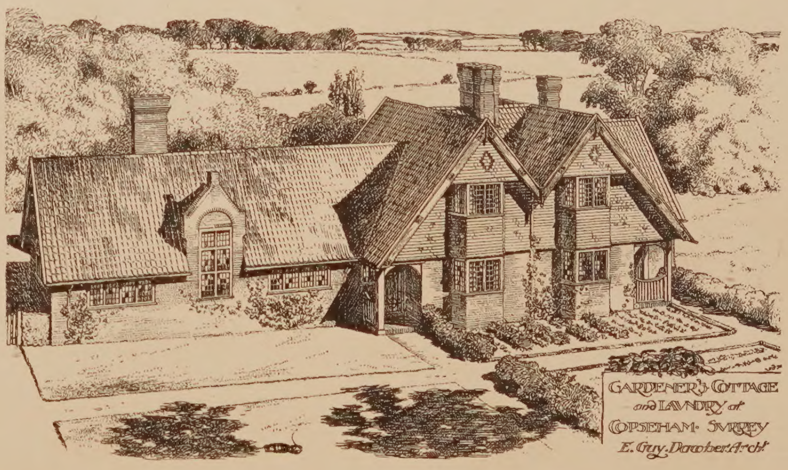
DISCUSSION.

Mr. Albert J. Marshall.—In connection with the remark by Mr. Perrot, that, "when the illuminating engineer has something of importance to do dealing with architecture, he should consult an architect," it might be well to note that it is a poor rule that does not work both ways, and that it would not be out of place to remark that when the architect has something of importance to do dealing with artificial lighting, it might be well for him to consult an illuminating engineer. By consulting such an independent source, the

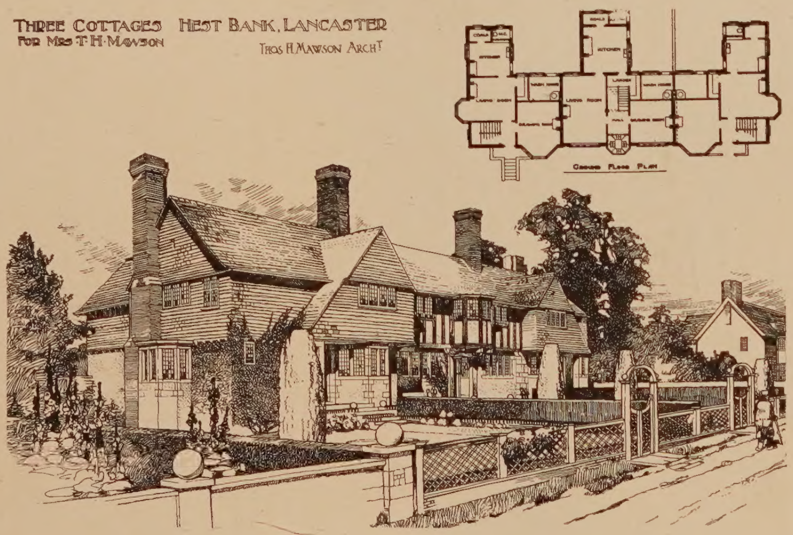
(Continued page 79)


St NICHOLAS' · MENS · CLVB
· CHISLEHVRST ·
PROPOSED · NEW · BVILDING
SCALE · OF · FEET · FOR · PLANS
GROUND PLAN
Maurice E Webb Architect

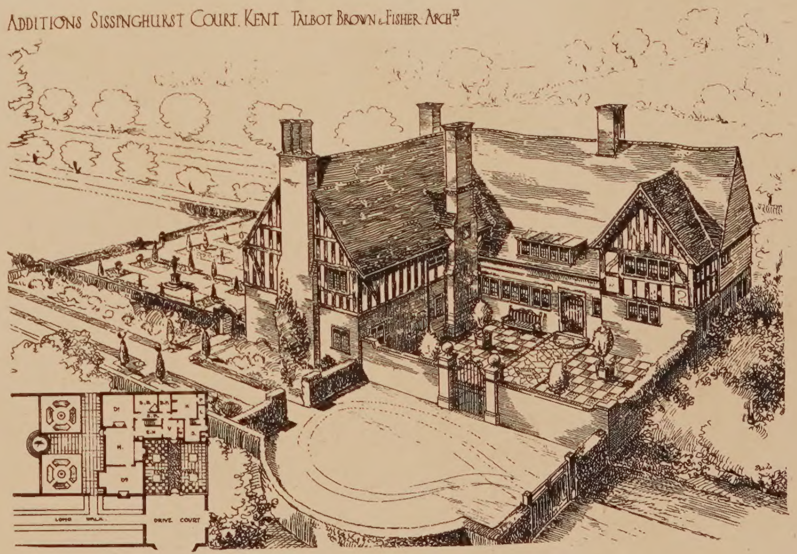
MENS CLUB, CHISLEHURST. Maurice E. Webb, Arch.



COTTAGE, COPSEHAM, SURREY. E. Guy Dawber, Arch.



COTTAGES, HEST BANK, LANCASTER. Thos. H. Mawson, Arch.


ADDITIONS SISSINGHURST COURT, KENT TALBOT BROWN & FISHER ARCHTS
LONG WALK
DRIVE COURT

SISSINGHURST COURT, KENT. Talbot Brown & Fisher, Arch's.

(*Continued from page 77*)

architect would not be under obligations to commercial interests which have heretofore oft-times supplied engineering information primarily as a means of selling their product.

Mr. Perrot states that lighting may be confined to two general heads, namely, "necessary lighting" and "decorative lighting," and that "under the first head, namely, necessary lighting, are included all methods of lighting which are used in buildings irrespective of the effect upon the architecture." In other words, the scientific application of the sources of light for the purpose of rendering possible the use of the building at night time. Personally I cannot conceive of any building in which artificial light may be used that does not have some architecture or decorative treatment to be considered when the lighting system is being designed, even though the building be of the crudest form; even if one were designing a lighting system for a barn it would be desirable to recommend a system which would be more harmonious with its surroundings. I think that too great stress cannot be laid on this most important point, namely, making a lighting system harmonize with its general surroundings in as full detail as possible.

Mr. L. R. Hopton.—My only criticism of this excellent paper is that it is not long enough to deal adequately with so large a subject as the relation between architecture and illumination. Mr. Perrot in his last paragraph has hit the nail squarely on the head, for while the illuminating engineer can exercise almost unrestricted his engineering function in designing illuminating schemes for all buildings of a commercial character he must work hand in hand with the architects on all but commercial work. I think that the Society can do nothing better than to publish the results of successful work done by prominent illuminating engineers in consultation with prominent architects. Such data would be of great educational value both to illuminating engineers and to architects.

Mr. Emile G. Perrot.—In the first place I wish it understood that the co-operation of the engineer and architect in any scheme is necessary. I myself by training am a structural engineer as well as an architect. The same difficulties which this Society is encountering in the case of the architects was felt long ago, and is felt to some extent today, by the big structural engineering firms who design the modern sky-scrapers, and the co-operation of the architect and engineer in these big undertakings is of vital importance. However, there are members of the architect profession who unfortunately, I may say, have very little liking for the structural or scientific. I shall endeavor to make clear my point regarding "necessary lighting" and "decorative lighting" or display lighting, as I do not think the meaning has been grasped exactly.

I do not refer to the fact of whether the fixture was in Louis XVI. style or art nouveau style or the French Empire style, or whatever it may be, I referred to the effect of the light on the moldings, and the shape of the moldings should correspond to a certain condition of light. As is well known, an object can be made to appear distorted by giving it the wrong viewpoint. Now, the lamps may be placed in a building so as to produce shadows on the wrong side of the moldings and thus make them look something different from what they are.

(*Continued page 80*)

Of Interest to Architects

THE extensive use of the telephone at the present time in hotels, apartment houses and office buildings renders it essential that some provision be made in buildings of these types to carry the large number of wires necessary for furnishing telephone service. When it is realized that in a number of buildings there are as many as a thousand telephones in service, and that it is necessary to carry two wires from each telephone to some central point in the building, the importance of making adequate provision for telephone wiring is apparent. If some arrangement is not included in the original building plans, it may be necessary to make extensive and costly alterations after the completion of the building in order to conceal the wires running through halls and rooms.

The Engineers of the Telephone Company will be glad at any time to give architects the benefit of their experience in such matters and to assist them in planning the best system for each individual case.

NEW YORK TELEPHONE COMPANY
NEW YORK & NEW JERSEY TELEPHONE CO.

AMERICAN TELEPHONE & TELEGRAPH CO. AND ASSOCIATED COMPANIES
BELL SYSTEM
LOCAL AND LONG DISTANCE TELEPHONE

(Continued from page 79)

Regarding the publication of various tables, etc., of which I spoke, I am well aware that each person has his own little sphere in which to labor. The illuminating engineer has his sphere just as does the architect, but I am a firm believer that when any body of men show that they are important, make themselves felt, they become servants of those who need them.

The architect needs the services of the illuminating engineer badly. It is to be regretted that architects do not call in the illuminating engineer in the earlier stages of their architectural schemes.

I repeat that this body of illuminating engineers, if they wish to make themselves felt, should act somewhat in the same manner as did the structural engineers and big steel corporations, by sending out literature in the shape of handbooks, thus making every little architect, no matter whether he designed only a wooden cottage, to realize that the steel beam was the thing to use in the proper place, and he had a book in which he could find a description and tables of strength of the steel beams for certain places. They created a demand through educating the architect concerning a matter about which, say fifty per cent. of the architects in the country, knew very little. A similar result would follow a similar action by the illuminating engineers. From a scientific standpoint, the architects know very little about illumination and if the Society were in a position to educate them, it would eliminate that defect in the knowledge of the architect concerning the matter of illumination.

COLUMBIA University announces Evening Technical Courses in Applied Mechanics, Applied Physics, Architecture, Chemistry, Domestic Art and Science, Electricity, Fine Arts, Manual Training, Mathematics, Surveying and Structures, English, French and German, under the administration of the Board of Extension Teaching, 1908-1909. To register in any course described in this announcement, send name, stating the course desired, to the Director of Extension Teaching, Teachers College, Columbia University, New York City.

IT is a surprising fact that Russia, supposed to be the most backward among the civilized nations, leads them all in many ways with regard to its liberal treatment of women. It is Russia which has introduced woman as an architect, and within two years it has demonstrated conclusively that the feminine mind lends itself with remarkable success to structural designing. Two years ago the University of St. Petersburg established an "architectural course for women," and recently an exhibit of the designs by the young women students astonished and delighted architects from Germany and France. One of the points of superiority over men observed was the attention and thoroughness in detail. Several original designs for homes met with unqualified praise, and two young women were marked as possessing undoubted genius. Mme. Besmertny, a champion of the higher education for women and a leading Russian novelist, has written as follows: "It has been shown amply that women are bound to make a success in architecture, especially in the designing of homes. Women are primarily home-makers. They know how a home should be built, and with instinctive knowledge joined with technical instruction they are certain to become ideal home builders." There is a lesson in the St. Petersburg experiment for our educators.

A Modern "Target-and-Arrow" Roof

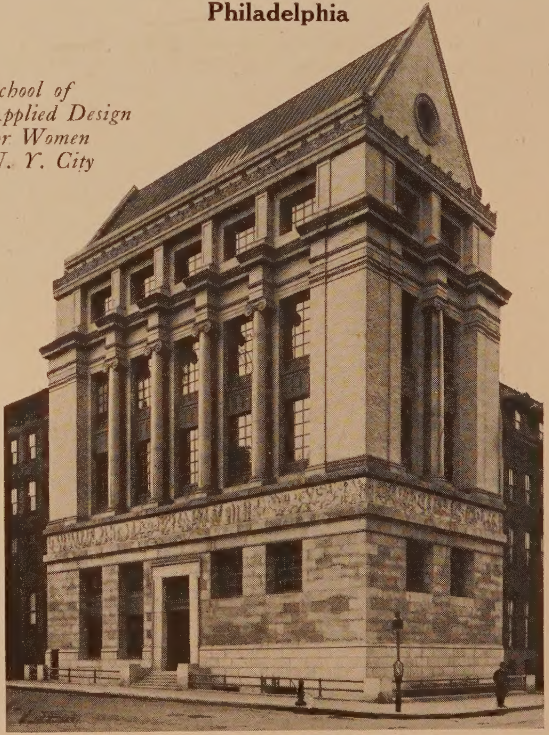
There is no way of judging the future of a brand of roofing tin except by the past.

It is the past of "Target-and-Arrow Old Style" and the knowledge that the same quality can be had now as in the past that prompts architects to specify and builders to use "Target-and-Arrow Old Style" roofing tin wherever durability and freedom from repairs are desired.

A recent instance: The School of Applied Design for Women, just completed in New York City.

Have you read our booklet, "A Guide to Good Roofs"? We will gladly mail it free to you or to any of your clients. See pages 407 to 409 in "Sweet's Index."

N. & G. TAYLOR COMPANY
The Old Philadelphia Tin Plate House
Established, 1810
Philadelphia



PELL & CORBETT, ARCHITECTS